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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/466,545	12/17/1999	DARRYL L. GAMEL	96794DIV3	1308

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EXAMINER	
TUGBANG, ANTHONY D	
ART UNIT	PAPER NUMBER
3729	

DATE MAILED: 12/30/2003

23

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/466,545	Applicant(s) GAMEL ET AL.	
	Examiner A. Dexter Tugbang	Art Unit 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3,5-7,9,54-60,62-64 and 71-73* is/are pending in the application.

4a) Of the above claim(s) *6,55-60 and 71-73* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3,5,7,9,54,62-64* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. The applicants' amendment filed 10/16/03 (Paper No. 22) has been fully considered and made of record.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

3. Claims 6, 55-60 and 71-73 continue to stand as being withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 20.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claim 54 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claim 21 of U.S. Patent No. 6,332,269. Although the

conflicting claims are not identical, they are not patentably distinct from each other because the limitations of Claim 54 of the instant application are inclusive of the limitations of Claim 21 of U.S. Patent 6,332,269 with the exception of the component having a fudicial physical asymmetry. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provided the component of the instant application with a "fudicial physical asymmetry" in order to place the component on the substrate.

Claim Rejections - 35 USC § 102

6. Claims 3, 5, 7, 54 and 62-64 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawatani 4,733,462.

Regarding Claims 3 and 54, Kawatani discloses a method of placing a component comprising: placing the component 7 into a nest (IC alignment unit 21) having an asymmetrically shaped recess 22 (in Fig. 1); detecting whether the physically asymmetric marker on the component mates with asymmetric shaped recess 22 and comparing the alignment of the component (see col. 4, lines 45+); and placing the component on the substrate 1 when mating of the physically asymmetric marker with the asymmetrically shaped recess is detected (see Figs. 2-4). The claimed "physically asymmetric marker" of the component is broadly read as the top surface area of the component 7.

Regarding Claims 5 and 7, the positioning pin 13 enables the component to be distinguished when the component is in predetermined alignment and also senses when the component contacts an upper surface of the recess (shown in Fig. 6).

Regarding Claim 62, the claimed "fudicial marker" of the component is broadly read as the top surface area of the component 7 and the shape of the component is broadly read as, or is equivalent to, an "alignment-indicating physical shape".

Regarding Claim 63, Kawatani further shows that (in Fig. 6), the top surface of the component 7, extends beyond the upper surface of the recess 22, which is detected.

Regarding Claim 64, Kawatani further teaches that the recess corresponds to a beveled edge (anyone of the leads of the component 7) of the component 7.

Claim Rejections - 35 USC § 103

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawatani in view of Sakaguchi et al 5,628,110.

Kawatani discloses the claimed manufacturing method as previously discussed, further including determining whether the fudicial marker is mated. Kawatani does not teach the specific steps of directing, receiving and comparing the radiation pattern.

Sakaguchi teaches directing, comparing and receiving a pattern of radiation (shown in Fig. 2) for the purpose of disregarding defecting components (see col. 6, lines 13+).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Kawatani by including the process steps of Sakaguchi, to positively disregard defective components.

Response to Arguments

8. Applicant's arguments (in Paper No. 22) filed 10/16/03 have been fully considered but have not been deemed to be found as persuasive.

I. Double Patenting

The double patent rejection above is maintained at least to the extent that the applicants' have not filed a terminal disclaimer and/or have not provided any arguments as to why Claim 54 of the instant application would not be obvious to one of ordinary skill in the art over Claim 21 of U.S. Patent No. 6,332,269.

II. Prior Art

In regards to the merits of Kawatani, it appears that the applicants' are arguing that Kawatani is deficient with respect to the features of a "physically asymmetric fudicial marker includes a physically asymmetric portion of a bottom surface of the component". The applicants' have added these features in the preamble of each of Claims 3, 54 and 62.

It is noted that these limitations added to the preamble of Claims 3, 54 and 62 are intended use limitations and have not been given patentable weight since the body of the claims do not depend upon the preamble for completeness and the process steps are able to stand alone. *In re Hirao*, 535 F.2d 67 190 USPQ 15 (CCPA 1976). For example, in each of Claims 3, 54 and 62, the claimed "bottom surface" is not even recited in the body of each claim. Thus, no nexus is provided between method steps recited in the body of the claims and the preamble.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching,

suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the prior art above each solve the problems of aligning components.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 703-308-7599. The examiner can normally be reached on Monday - Friday 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.

A. Dexter Tugbang
Primary Examiner
Art Unit 3729

December 29, 2003